

CLAIMS

What is claimed is:

- 1 1. A system capable of dynamically configuring a multi-node computer, the system
2 comprising:
3 a plurality of processor nodes; and
4 a scalability management module directly coupled to each of the plurality of processor
5 nodes, the scalability management module including:
6 a dedicated processor for managing the plurality of nodes, the dedicated processor
7 not being from the plurality of processor nodes; and
8 a scalability chipset for enabling the dedicated processor to dynamically
9 configures the plurality of nodes into a coordinated multi-node computer,
10 wherein the multi-node computer is configured by the scalability management module without a
11 re-wiring of connections between processor nodes during a subsequent reconfiguration of the
12 multi-node computer.
- 1 2. The system of claim 1, wherein the scalability chipset comprises:
2 a memory controller
3 a scalability controller, and
4 a host bridge controller.
- 1 3. The system of claim 1, wherein the plurality of processor nodes includes a hot spare node
2 capable of being configured by the scalability management module if another of the processor
3 nodes fails or is removed from the multi-node computer.
- 1 4. The system of claim 1, further comprising:
2 a remote manager logic coupled to the scalability management module, wherein the
3 remote manager logic controls the configuration of the multi-node computer via the scalability
4 management module.

1 5. A method for dynamically configuring a multi-node computer, the method comprising:
2 performing a primary boot on a plurality of processor nodes;
3 registering configuration parameters from each of the processor nodes with a scalability
4 management module, the scalability management module including:
5 a dedicated processor for managing the plurality of nodes, the dedicated processor
6 not being from the plurality of processor nodes; and
7 a scalability chipset for enabling the dedicated processor to dynamically
8 configure the plurality of nodes into a coordinated multi-node computer,
9 configuring each processor node according to configuration data supplied by the
10 scalability management module; and
11 completing a full boot on a host processor node, the host processor node being selected
12 by the scalability management module from the plurality of processor nodes, to enable the host
13 processor node to control the multi-node computer.

1 6. The method of claim 5, wherein the scalability chipset comprises:
2 a memory controller
3 a scalability controller, and
4 a host bridge controller.

1 7. The method of claim 5, wherein the plurality of processor nodes includes a hot spare
2 node capable of being configured by the scalability management module if another of the
3 processor nodes fails or is removed from the multi-node computer.

1 8. The method of claim 5, further comprising:
2 coupling a remote manager logic to the scalability management module, wherein the
3 remote manager logic controls the configuration of the multi-node computer via the scalability
4 management module.

1 9. A computer program product, residing on a computer usable medium, for dynamically
2 configuring a multi-node computer, the computer program product comprising:

3 program code for performing a primary boot on a plurality of processor nodes;
4 program code for registering configuration parameters from each of the processor nodes
5 with a scalability management module, the scalability management module including:
6 a dedicated processor for managing the plurality of nodes, the dedicated processor
7 not being from the plurality of processor nodes; and
8 a scalability chipset for enabling the dedicated processor to dynamically
9 configures the plurality of nodes into a coordinated multi-node computer,
10 program code for configuring each processor node according to configuration data
11 supplied by the scalability management module; and
12 program code for completing a full boot on a host processor node, the host processor
13 node being selected by the scalability management module from the plurality of processor nodes,
14 to enable the host processor node to control the multi-node computer.

1 10. The computer program product of claim 9, wherein the scalability chipset comprises:
2 a memory controller
3 a scalability controller, and
4 a host bridge controller.

1 11. The computer program product of claim 9, wherein the plurality of processor nodes
2 includes a hot spare node capable of being configured by the scalability management module if
3 another of the processor nodes fails or is removed from the multi-node computer.

1 12. The computer program product of claim 9, further comprising:
2 program code for coupling a remote manager logic to the scalability management
3 module, wherein the remote manager logic controls the configuration of the multi-node computer
4 via the scalability management module.

1 13. A service for dynamically configuring a multi-node computer, the service comprising:
2 performing a primary boot on a plurality of processor nodes;
3 registering configuration parameters from each of the processor nodes with a scalability
4 management module, the scalability management module including:

5 a dedicated processor for managing the plurality of nodes, the dedicated processor
6 not being from the plurality of processor nodes; and
7 a scalability chipset for enabling the dedicated processor to dynamically
8 configures the plurality of nodes into a coordinated multi-node computer,
9 configuring each processor node according to configuration data supplied by the
10 scalability management module; and
11 completing a full boot on a host processor node, the host processor node being selected
12 by the scalability management module from the plurality of processor nodes, to enable the host
13 processor node to control the multi-node computer.

1 14. The service of claim 13, wherein the scalability chipset comprises:
2 a memory controller
3 a scalability controller, and
4 a host bridge controller.

1 15. The service of claim 13, wherein the plurality of processor nodes includes a hot spare
2 node capable of being configured by the scalability management module if another of the
3 processor nodes fails or is removed from the multi-node computer.

1 16. The service of claim 13, further comprising:
2 coupling a remote manager logic to the scalability management module, wherein the
3 remote manager logic controls the configuration of the multi-node computer via the scalability
4 management module.